

REMARKS

Applicant has amended the claims to cancel claims 48-66, 76-91 and 99-135 to reduce the total number of claims to be examined in the pending application to only selected claims 67-75 and 92-98. These included 2 independent claims and 16 claims in total. Applicant intends to file 5 continuation applications to pursue the non-selected claims, with each containing a selected grouping of the non-selected claims. Applicant disagrees with the conclusion that an undue multiplicity of claims existed, but to expedite prosecution and in understanding of the burden the number of claims placed on the Examiner, Applicant has agreed to reduce the number of claims to be examined in the present application. The groupings of claims will take into consideration the multiplicity of inventions issue noted by the Examiner.

Regarding the further questions with respect to the prior response to the Requirement For Information under 37 CFR 1.105, Applicant provides the following comments.

With regard to the request more information concerning reverse DNS. DNS is a distributed database containing names and addresses. Most commonly, DNS queries begin with a name, and end with an IP address. Take for example, a shopper wishing to navigate to www.google.com. The shopper's machine makes a query for "www.google.com" and the DNS system responds with "66.102.7.99". In another example, a mail server receives an email from an IP address, and wishes to know more about the sender. The mail server queries the DNS system in what is called a "reverse lookup." (RFC 1034:5.2.1.2) The query is for an IP address, and the DNS system responds with the name assigned to that IP. The name, in this case, is whatever the administrator responsible for that IP address has chosen. RFC 1178, classified as Informational, attempts give advice to administrators when choosing names. RFC 1178 makes no mention of indicating location in DNS names. On the other hand, RFC 1034:3.2 (Standard 13), states "the system was designed so that the name space did not have to be organized along the lines of network boundaries, name servers, etc. The rationale for this is not that the name space should have no implied semantics, but rather that the choice of implied semantics should be left open to be used for the

problem at hand". Network administrators have overwhelmingly chosen to include semantic indicators for geography, connection type, connection speed, assignment transience or permanence in their DNS reverse lookup names. Applicant invented, at least in part and in some applications of the invention parsing of the reverse DNS name string to determine semantic indicators, translate them into shopper characteristics, and present a customized selection of products and services. <http://www.google.com/>

With regard to the request to clarify the modifications to the prior art Applicant claims as the invention, Applicant refers to independent claims 67 and 92, by way of example. These are the only two independent claims remaining in the application. Applicant claims as his invention a system that uses certain data in a new manner. As stated in claim 67, a shopper data collector is configured to collect and analyze data from a remote computers of shoppers to determine information usable to formulate tailored store screens for the shoppers, including for a current communication with a host system by each shopper, data from the shopper's computer collected and analyzed during the current communication from which the shopper data collector determines for the current communication the location of the shopper's computer at the time of the current communication. This is done without the host system requiring the shopper to take any direct action to instruct the shopper's computer to provide such information to the host system and without the host system having such information prior to the current communication (for example by the shopper instructing the shopper's computer to provide a "user name" or by the host computer requesting the shopper's computer to provide information concerning the shopper's computer or the shopper's identity by way of a "cookie" on the shopper's computer, as were done prior to the Applicant's invention). A presentation formulator is configured to formulate tailored store screens to be displayed on the remote computers of shoppers, including for the current communication by the shopper. The presentation formulator formulates one or more tailored store screens to be displayed on the shopper's computer during the current communication by including and excluding selected information in at least one of a merchandise database and a services database at least in part based upon the location of the shopper's computer at the time of the current communication, as determined by the shopper data collector. A web server is configured to communicate with the remote

computers of shoppers and to send the tailored store screens to the remote computers. Similarly, as expressed in claim 92, a data collector is configured to determine, from data transmitted from one of the computers to the system during a current communication session, the identity of the network address of the computer. The data collector is further configured to determine, through use of the identity of the network address, additional information about the computer that is in addition to the identity of the computer's network address, without need of a communication session between the system and the computer occurring prior to the current communication session and without need of the computer furnishing any portion of the additional information about the computer to the system. A presentation formulator is configured to select, based at least in part upon the additional information about the computer determined by the data collector, data regarding at least one of merchandise and services from the database to be included in at least one tailored screen to be displayed on the computer during the current communication session with the system. Applicant is unaware of any prior art system that has the described structure or function, or uses the data in the manner described.

With regard to the request to provide information on the private and public databases and what information is used from those databases to determine shopper characteristics, please consider the following comments. Specifically useful public databases include, but are not to be limited to, the DNS system, ARIN registrations, ARIN country delegations, census records, and land and real-estate records. DNS and ARIN are used provide shopper characteristics including location, while census and land records provide additional shopper characteristics based on location, for example, the average income or average home value in the shopper's area. The shopper's internet connection type and brand as typically indicated by the DNS system can be used to correlate with private databases containing further demographic information about customers of particular services, for example, cable-modem users may share demographic characteristics that differentiate them from dial-up users, eg. their use of cable television. Large internet retailers could maintain private databases which contain such information as gender, age, and brand preferences correlated with a given IP address or range. Google has recently begun to offer target marketing specifically

based on DNS and country delegation records. For a more complete discussion of IP address based target marketing, please see Google's 2006 Adwords page at:

<http://adwords.google.com/support/bin/answer.py?answer=6401&topic=7065>

Practical examples of public and private database information:

1. Given the shopper IP address 24.128.70.33
 1. Public Database Reverse DNS record is c-24-128-70-33.hsd1.nh.comcast.net indicating shopper is located in New Hampshire
 2. Public Database Reverse DNS record of nearest router is ge-0-2-ubr02.portsmouth.nh.boston.comcast.net indicates the shopper is located in Portsmouth, NH.
 3. Average income in Portsmouth NH is \$45,915 from the 2000 Census Public Database at <http://censtats.census.gov/data/NH/1603362900.pdf>
 4. National Retailer X maintains a private database which contains the datum that shoppers in Portsmouth, NH prefer Coca-Cola.
2. Given the shopper IP address 24.127.74.33
 1. Public Database DNS reverse record is c-24-127-74-33.hsd1.ca.comcast.net. indicating the shopper is located in California.
 2. Public Database ARIN record shows the "NetName" record field contains "LOSANGELES-2" indicating the shopper is located in Los Angeles. (<http://ws.arin.net/whois/?queryinput=!%20NET-24-127-0-0-1>)
 3. Public Database of FAA airports indicate the shopper's nearest airport is LAX. Shopper will be offered travel packages originating from LAX. (http://www.faa.gov/airports_airtraffic/airports/airport_safety/airportdata_5010/)
 4. National Retailer X maintains a private database which contains the datum that shoppers in Los Angeles, CA prefer Pepsi.
3. Given the shopper IP address 68.166.181.102
 1. Public Database of rwhois data indicates the netblock is assigned to a private company located in Seattle, WA 98121. ([rwhois://rwhois.covad.net](http://rwhois.covad.net))

2. Public Database of Census data contains the datum that 51% of residents in 98121 have a College Degree.
(http://factfinder.census.gov/servlet/SAFFacts?_event=Search&geo_id=&geoContext=&_street=&_county=98121&_cityTown=98121&_state=&_zip=98121&_lang=en&_sse=on&pctxt=fph&pgsl=010)
3. Car Company X maintains a private database of purchaser preferences indicating high demand for hybrid vehicles in zip code 98121.
4. Given the shopper IP address 4.243.7.115
 1. Public Database DNS reverse record dialup-4.243.7.115.Dial1.Seattle1.Level3.net indicates the user id located in Seattle and is a dialup customer.
 2. Public Database of census data indicates the average home value in Seattle is \$259,600.
(http://factfinder.census.gov/servlet/SAFFacts?_event=ChangeGeoContext&geo_id=16000US5363000&_geoContext=01000US)
 3. National Retailer X maintains a private database which contains the datum that shoppers in Seattle, WA prefer Red Bull Energy Drink.
 4. Communications company X wishes to target dialup users for a DSL upgrade campaign.

With regard to the request to provide information about the software, such as the software mentioned in claim 48, a response is not believed necessary since claim 48 has been cancelled. If such information is still deemed needed by the Examiner, Applicant will be glad to provide it if again requested.

With regard to the request to provide examples of header fields and how they are used with respect to applicant's invention, consider the following.

1. In the original application filed 2000, applicant provides table 1 containing HTTP headers. One specific header is "Accept-Language: en-us", which indicates the language setup on the shopper's machine. This header would indicate the shopper's preference for English as opposed to Spanish.

2. In the IP header of every packet in the current communication is the shopper's IP address. As demonstrated, the IP address can be used with public and private databases to identify a wide range of shopper preferences. The following IP packet header contains the shopper IP address 4.243.7.115 (encoded at position 16 (0x10 hexadecimal) in hexadecimal as 04.f3.07.73):

```
0x0000: 4500 018f fbfe 4000 4006 cd2d d8d3 8b03
0x0010: 04f3 0773 0050 05bc adbf 6dbc 0a64 5912
0x0020: 5018 2180 71be 0000 229b 8a5d 3b6c aef4
0x0030: 4900 b809 08e8 deab 33ab 89cc cb9a 723b
0x0040: 2d95 ec12 30b5 cd05 a460 83d5 295c f82c
```

3. In the current communication the HTTP header contains the shopper's IP address 216.254.14.142 (encoded at position 12 (0x0c) in hexadecimal as d8.fe.0e.8e) and the User-Agent of "Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.8.0.1) Gecko/20060313 Fedora/1.5.0.1-9 Firefox/1.5.0.1 pango-text". The shopper was referred from google.com with a search string of "father's day tableware". The shopper is using a Linux P4 system running Fedora installed with US English as the system language.

```
0x0000: 4500 029b fae9 4000 3806 fa0f d8fe 0e8e E.....@.8.....
0x0010: d8d3 8b03 beed 0050 be27 6d42 1f42 1fad .....P.'mB.B..
0x0020: 8018 05b4 0bd6 0000 0101 080a 0045 97aa .....E..
0x0030: 19bc 6970 4745 5420 2f20 4854 5450 2f31 ..ipGET./HTTP/1
0x0040: 2e31 0d0a 486f 7374 3a20 7777 772e 7461 ..Host:..www.ta
0x0050: 626c 6561 6e64 686f 6d65 2e63 6f6d 0d0a bleandhome.com..
0x0060: 5573 6572 2d41 6765 6e74 3a20 4d6f 7a69 User-Agent:..Mozi
0x0070: 6c6c 612f 352e 3020 2858 3131 3b20 553b lla/5.0.(X11;..U;
0x0080: 204c 696e 7578 2069 3638 363b 2065 6e2d ..Linux.i686;..en-
0x0090: 5553 3b20 7276 3a31 2e38 2e30 2e31 2920 US;..rv:1.8.0.1).
0x00a0: 4765 636b 6f2f 3230 3036 3033 3133 2046 Gecko/20060313.F
0x00b0: 6564 6f72 612f 312e 352e 302e 312d 3920 edora/1.5.0.1-9.
0x00c0: 4669 7265 666f 782f 312e 352e 302e 3120 Firefox/1.5.0.1.
0x00d0: 7061 6e67 6f2d 7465 7874 0d0a 4163 6365 pango-text..Acce
0x00e0: 7074 3a20 7465 7874 2f78 6d6c 2c61 7070 pt:..text/xml,app
0x00f0: 6c69 6361 7469 6f6e 2f78 6d6c 2c61 7070 lication/xml,app
0x0100: 6c69 6361 7469 6f6e 2f78 6874 6d6c 2b78 lication/xhtml+xml
0x0110: 6d6c 2c74 6578 742f 6874 6d6c 3b71 3d30 ml,../text/html;q=0
```

```

0x0120: 2e39 2c74 6578 742f 706c 6169 6e3b 713d .9,text/plain;q=
0x0130: 302e 382c 696d 6167 652f 706e 672c 2a2f 0.8,image/png,*/
0x0140: 2a3b 713d 302e 350d 0a41 6363 6570 742d *,q=0.5..Accept-
0x0150: 4c61 6e67 7561 6765 3a20 656e 2d75 732c Language:.en-us,
0x0160: 656e 3b71 3d30 2e35 0d0a 4163 6365 7074 en;q=0.5..Accept
0x0170: 2d45 6e63 6f64 696e 673a 2067 7a69 702c -Encoding:.gzip,
0x0180: 6465 666c 6174 650d 0a41 6363 6570 742d deflate..Accept-
0x0190: 4368 6172 7365 743a 2049 534f 2d38 3835 Charset:.ISO-885
0x01a0: 392d 312c 7574 662d 383b 713d 302e 372c 9-1,utf-8;q=0.7,
0x01b0: 2a3b 713d 302e 370d 0a4b 6565 702d 416c *,q=0.7..Keep-Al
0x01c0: 6976 653a 2033 3030 0d0a 436f 6e6e 6563 ive:.300..Connec
0x01d0: 7469 6f6e 3a20 6b65 6570 2d61 6c69 7665 tion:.keep-alive
0x01e0: 0d0a 5265 6665 7265 723a 2068 7474 703a ..Referer:.http:
0x01f0: 2f2f 7777 772e 676f 6f67 6c65 2e63 6f6d //www.google.com
0x0200: 2f73 6561 7263 683f 6e75 6d3d 3130 3026 /search?num=100&
0x0210: 686c 3d65 6e26 6c72 3d26 7361 6665 3d6f hl=en&lr=&safe=o
0x0220: 6666 2671 3d66 6174 6865 7225 3237 732b ff&q=father%27s+
0x0230: 6461 792b 7461 626c 6577 6172 6526 6274 day+tableware&bt
0x0240: 6e47 3d53 6561 7263 680d 0a43 6f6f 6b69 nG=Search..Cooki
0x0250: 653a 2043 616d 616e 6f53 4944 2d50 3d48 e:.CamanoSID-P=H
0x0260: 6c54 6971 3743 5845 3135 4549 7967 4539 ITiq7CXE15ElygE9
0x0270: 4134 7930 413b 2043 616d 616e 6f53 4944 A4y0A;.CamanoSID
0x0280: 3d48 6c54 6971 3743 5845 3135 4549 7967 =HITiq7CXE15Elyg
0x0290: 4539 4134 7930 410d 0a0d 0a E9A4y0A....

```

The Public Database DNS reverse lookup record is “dsl254-014-142.sea1.dsl.speakeasy.net” indicating the shopper is a DSL customer. The Public Database DNS reverse lookup record of the nearest backbone router is “ge-11-0.hsa2.Seattle1.Level3.net” indicating the shopper is in Seattle. (see traceroute dump)

```

traceroute to 216.254.14.142 (216.254.14.142), 30 hops max, 38 byte packets
 1 10.255.255.253 (10.255.255.253) 2.157 ms 2.091 ms 2.213 ms
 2 v993.gw-core-a.whn.schlund.net (217.160.229.45) 0.262 ms 0.213 ms 0.212 ms
 3 ge-511.gw-backbone-b.nyc.schlund.net (217.160.229.66) 0.250 ms 0.212 ms 0.238
ms
 4 4.78.164.1 (4.78.164.1) 0.574 ms 0.513 ms 0.539 ms

```

5 ae-2-54.bbr2.NewYork1.Level3.net (4.68.97.97) 0.777 ms ae-2-52.bbr2.NewYork1.Level3.net (4.68.97.33) 0.975 ms ae-2-54.bbr2.NewYork1.Level3.net (4.68.97.97) 0.886 ms

6 ae-0-0.mp1.Seattle1.Level3.net (209.247.9.121) 69.088 ms as-1-0.mp2.Seattle1.Level3.net (209.247.10.133) 69.954 ms 81.560 ms

7 ge-10-0.hsa2.Seattle1.Level3.net (4.68.105.7) 70.430 ms ge-11-1.hsa2.Seattle1.Level3.net (4.68.105.103) 70.437 ms ge-10-0.hsa2.Seattle1.Level3.net (4.68.105.7) 70.529 ms

8 unknown.Level3.net (209.247.91.170) 70.531 ms 70.670 ms 70.604 ms

9 220.ge-3-0.er1.sea1.speakeasy.net (69.17.83.234) 73.324 ms 72.116 ms 72.982 ms

10 dsl254-014-142.sea1.dsl.speakeasy.net (216.254.14.142) 82.474 ms 83.606 ms 83.787 ms

4. The header fields for the Examiner's visit to the demonstration site on November 12, 2003 included the IP source address 63.71.228.3 enabling the site to determine the Examiner's geographic location (VA) and his affiliation (FTS2001/US Patent & Trade) and also included the following values:

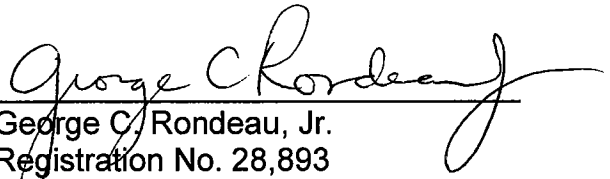
1. Accept: image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, application/vnd-ms.excel, application/vnd-ms.powerpoint, application/msword...
2. Accept-Language: en-us
3. Connection: Keep-Alive
4. Host: www.discountcenter.us
5. Referrer:
http://www.google.com/search?q=+site:www.discountcenter.us+discountcenter.us&hl=en...
6. User-Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 4.0; T312461)

Commissioner is hereby authorized to charge any additional fees if believed necessary, or to charge any deficiency or credit any overpayment to Deposit Account No. 04-0258.

All of the claims remaining in the application are now believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

If questions remain regarding this application, the Examiner is invited to contact the undersigned at (206) 628-7739.

Respectfully submitted,
Richard A. Leeds
DAVIS WRIGHT TREMAINE LLP

By 
George C. Rondeau, Jr.
Registration No. 28,893

2600 Century Square
1501 Fourth Avenue
Seattle, WA 98101-1688
Phone: (206) 628-7739
Facsimile: (206) 903-3739